

A special Supplement to Pro Audio Review, November 2006

ProAudio Review

The Review Resource for Sound Professionals



The Buyers Series: MICROPHONES



Audio-Technica's new Artist Series™

The next generation is here.



Audio-Technica's renowned Artist Series has been re-engineered from the ground up. We've packed the culmination of 40+ years of research and design into the rebirth of these road-proven, reliable designs — adding some spectacularly innovative microphones to the line, and upgrading classic models for a complete selection of vocal, instrument and drum mics.

This first-ever remake of the Artist Series was inspired by consultations with touring artists and sound engineers who rely on these microphones for rock-solid performance every night. Our engineers turned their *what if's* into *why not's*. Why not create a dual-element kick drum mic that the working musician can afford? Or a pencil side-address condenser built for incredibly flexible placement options? What about adding a durable vocal condenser to the Artist Series family? We are proud to have made these and more dreams for this series a reality.

The sound is everything you'd expect from Audio-Technica. The vocal mics set industry standards for intelligibility, detailed reproduction and noise suppression. The new instrument microphones feature a fast transient response and low distortion characteristics that faithfully reproduce the complex details of virtually every sound source. For the drums, Audio-Technica built on the legacy of its legendary AE2500, and introduced the ATM250DE, a dual-element kick-drum microphone that combines two perfectly positioned capsules in a single housing.

These mics are built tough. As the company that made studio condensers durable enough for stage use, we know a thing or two about solid construction. The Artist Series is rugged to the core — these all-metal microphones are engineered to perform flawlessly despite the inevitable bumps and bruises of life on the road.

These microphones are created to bring clear sound, rock-solid durability and aesthetic design to every stage where artists and audiences connect... from corner bars to Carnegie Hall. Meet the Artist Series. New, again, from Audio-Technica, the pioneer in high-performance transducer design.

Vocal Microphones

ATM410 Cardioid Dynamic Vocal Microphone This cardioid dynamic workhorse is designed for smooth, natural vocal reproduction and low noise.



ATM610 Hypercardioid Dynamic Vocal Microphone The premier Artist Series dynamic vocal mic is tuned for clear, detailed, extended-range reproduction of lead and backup vocals.

ATM710 Cardioid Condenser Vocal Microphone The Artist Series vocal condenser microphone is tailored for exacting detail and high-fidelity vocal reproduction.

Instrument Microphones

ATM250 Hypercardioid Dynamic Instrument Microphone The ATM250 hypercardioid dynamic is tailored for kick drum, percussion, brass and other highly dynamic instruments.

ATM250DE Dual-Element Instrument Microphone The ATM250DE dual-element kick drum microphone features cardioid condenser and hypercardioid dynamic capsules combined in a single housing.

ATM350 Cardioid Condenser Clip-On Microphone The low-profile ATM350 is an exceptional cardioid condenser microphone designed to clip to brass, reeds, piano, snare, toms and violin.

ATM450 Cardioid Condenser Instrument Microphone The ATM450 cardioid condenser offers an innovative side-address stick design for endless placement options and minimal obstructions.

ATM650 Hypercardioid Dynamic Instrument Microphone The versatile ATM650 has a frequency response tailored for clear sound reproduction of guitar cabinets, snare and percussion.



audio-technica
always listening.

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THE NEW ARTIST SERIES™

COMPLETELY RE-ENGINEERED FROM THE GROUND UP



ATM710
condenser tailored for high-fidelity vocal reproduction



ATM610
hypercardioid dynamic for extended-range vocals



ATM410
dynamic workhorse for lead and backup vocals



ATM650
high-output instrument mic with multi-stage grille



ATM350
clip-on condenser supplied with violin mount & UniMount® clip



ATM250DE
affordable dual-element kick mic (condenser/dynamic)



ATM250
hypercardioid dynamic kick/percussion mic tailored for high SPLs



ATM450
side-address stick condenser offers endless placement options

For detailed information on the all-new Artist Series, visit www.audio-technica.com

audio-technica®
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Big Ribbon™ Microphones



Turtle Island String Quartet photo: Gus Skinas / Sonoma DSD

Audio Engineering Associates (AEA) has championed ribbon microphones for over twenty-five years. AEA's Wes Dooley has serviced, sold, and demonstrated the virtues of ribbon mics from beyerdynamic, Coles and RCA. In 1996 he began work on the **Big Ribbon™** series: a classic R44C reissue, the neo-classic R84, the stereo R88, and our new, up-close R92. AEA also builds **The Ribbon Pre™**, Decca trees, MS matrixes, stereo microphone positioners, and tall mic stands and booms.

Recording work in Europe, Africa, New Zealand, and the United States led Wes to design products for AEA and friends. For his 1972 African recordings he created AEA's **Flight Weight™** stands. For LA Philharmonic broadcast recordings he developed **Active MS Stereo™** decoders. In 1980s he began importing Coles ribbons, and built the MS380TX preamp with 84 dB of gain. In the 1990s Wes designed heavy-duty tall-stands and booms, stereo microphone positioners, Decca trees and microphone arrays, and he reintroduced the 44 series ribbon mics.

Wes Dooley and Ron Streicher have written three papers: **Basic Stereo Microphone Perspectives—A Review**, **M-S Stereo: A Powerful Technique for Working in Stereo**, and **The Bi-Directional Microphone—A Forgotten Patriarch** published by the Audio Engineering Society (AES). Wes was awarded the AES Silver Medal in 2003 for his contributions to the field of audio engineering.

Turtle Island String Quartet's first TELARC release, **Four + 4**, won the 2006 Best Classical Crossover Album Grammy. Their second TELARC recording this August used five AEA R84s, one R44C, and two stereo R88s with AEA TRP pre-amps. Five Sennheiser MKH 800s and a Neumann 'Fritz' dummy head handled the distant miking. ATC played these masters in their October AES demo room to rave reviews.

AEA has made accessible the classic **Big Ribbon™** sound to a new generation of engineers such as Linda Perry and Sylvia Massy Shivy. AEA users love their mics and often write us about their experiences.

"I never dreamed I would use it (R84) as much as I do. It sounds good everywhere".

"...my favorite mic (R84)—I've used it on vocals, harmonica, percussion and violin so far—I want another".

"Excels on saturated guitars!!!!" (R92)

"I am absolutely blown away by the smoothness and warmth of the R92, and how it retains high end detail without the high-mid shrillness of even the most expensive condensers.... I can scarcely recall when I have been more pleased with a gear purchase. The R92 is amazing!"

"(R88) Fantastic on brass and drum overheads. I love this mic....I use it on every session ...".

"I own other ribbon mics, but this one (R88) is stunning."

Brian Ahern recorded Emmylou Harris' **Connection** (2006 Grammy for best country vocal performance) with just one mic. "I kept waiting for something to sound wrong but it never did! I used different distances for different sound timbres. Other than a beat box, it's all just my AEA R44".



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Associates**

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Buy Your Ticket to Audio Paradise

R44

R84

TRP

R88

R92



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Audix Microphones: Consistent Innovation!



Cliff Castle, Audix co-founder



Eddie Vetter with OM7



VX-5 hand held condenser



Audix Microphones

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The following is a “Snap-Shot” Interview with Cliff Castle—co-founder of Audix, an innovative microphone manufacturer that has consistently raised the bar with its successful line of products, including the award winning SCX-1, SCX25-A and D series studio microphones, and the top performing OM-Series vocal mics, the Micros, the VX10, and i-5 for sound reinforcement and installations.

How did Audix get its start?

Audix had its humble beginnings back in 1984 in Redwood City, California in a “suite” of offices totaling about 300 square feet! Initially, we were set up as the distribution arm for Audix Japan, a microphone company who was manufacturing strictly for the domestic market. The microphones were good, but not good enough to compete with the industry standards of the day. One thing led to another and we started redesigning the microphones and improving the performance characteristics. The first two years were pretty painful, but, by 1986, we introduced our first high-level vocal performance mic, the OM 1, which received very positive magazine reviews and made its way into high profile users including the Beach Boys, one of my all time favorite groups.

The OM series vocal mics are stronger today than ever. How has Audix maintained this success?

We developed our own capsule design that featured “VLM” technology, which stands for “Very Low Mass.” These lightweight diaphragms are able to react more quickly to incoming sound waves, which result in a more natural, accurate sound with better transient response. This diaphragm design, along with the hypercardioid design of the polar pattern, provided unprecedented gain before feedback, still unparalleled to this day.

Artist and engineer support has also helped. We happened to be paying attention to the “grunge” groups emerging out of the Northwest in the early 1990s. I demoed the OM7 to Dave Rat (Rat Sound) who was providing sound for two unknown groups at the time—Pearl Jam and Red Hot Chili Peppers. He pretty much flipped out when he heard the gain before feedback of the OM7 in the monitors. He thought there was some type of voodoo going on. Before we knew it, the OM7 became the microphone of choice for just about all the groups in the grunge scene—and fortunately for us, the groups hit the mainstream. By 1995, another of our mics, the

OM5, made its way into the hands of “The Tonight Show,” the Late Show” and “MTV Unplugged,” as well as many artists such as Alanis Morissette, Bonnie Raitt, Bruce Springsteen, and Crosby, Stills, and Nash—all of whom continue to use their Audix mics to this day.

Audix is now established as a leading manufacturer in drum and percussion mics – how did that come about?

Being a musician helps. I realized that drummers and percussionists, the guys who provide the heart-beat for any musical content, were being neglected as far as mics specifically designed for their applications. The Sennheiser 421, which we recognized as a great mic, had become the standard percussion mic for pros. The downside to that mic is that it’s fairly big, cumbersome and expensive. So we came up with the D series—application-specific mics for



CNC 8 axis lathe produces the D series

drums. Machined at Audix out of high-grade aluminum bars, these mics are compact, accurate, able to handle high SPLs, and cost effective. After a few years, they gained widespread recognition, and with the most recent addition of the D6 and the i-5, these mics have become really good, dependable tools for a wide variety of instrument needs.

Audix also continues to develop interesting condenser mics. Any tricks up your sleeve that we should be on the lookout for?

You already know about the SCX25-A, an improved version of our formidable large-diaphragm condenser mic that is ideal for acoustic instruments, overheads, and vocals. The Micros are the world’s smallest standalone condenser microphones with an integrated mic preamp. The 50-inch carbon fiber MicroBoom incorporates the Micros in a way that makes it the ideal solution for choir miking without having to hang mics from the ceiling. And our latest innovation is the VX5 handheld condenser vocal mic with pad and rolloff. Keep an eye out for that mic; it is bound for stardom!



On Tour with AUDIX Microphones

Clockwise from top left

Bonnie Raitt > Shooter Jennings > Tower of Power >

Katie Melua > Fall Out Boy > MxPx > Casting Crowns >

Alanis Morissette > Daize Shayne >

Charlie Musselwhite > Matisyahu >

Photography by: Rob Schnell (MxPx)

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SMK4061 Miniaturizing Piano Miking



The SMK4061 Stereo Microphone kit has been designed for both live and recording applications with Acoustic Piano in mind. The kit is based around a hand-selected pair of our world famous 4061 Miniature series omnidirectional microphones. The 4061 is currently the microphone of choice for many individuals and organizations, from being the mic mounted on priceless Stradivarius instruments for live performances, to the mics for all instruments in the L.A. Philharmonic when playing at the Hollywood Bowl.



Well-Deserved Reputation

The 4061 has earned a reputation as a moderate cost, nearly invisible microphone that offers all of the sonic advantages of the larger, more expensive microphones DPA has become famous for. Providing a characterless sound quality, the 4061 is also capable of handling the extreme sound pressure levels that occur when mounting the microphones in very close proximity...or even directly on the instrument itself. Doing these things with high resolution and detail is what puts the 4061 into a performance category all to itself.

In developing the SMK4061 solution, we assembled a range of accessories that lend themselves to the Acoustic Piano. Getting exceptional results with the acoustic piano, specifically "on stage" in a house of worship music ministry application, has proven to be difficult at best for even the top facilities. Generally a large diaphragm microphone is settled

upon after countless hours of frustration and many dollars investing in miking solutions that simply don't work. Sadly, even with the large diaphragm mics, often a lack of clarity and something less than "musical honesty" is the best that can be achieved. This type of microphone typically requires mic stands and boom arms, giving a less than desired aesthetic to the stage area and simply does not lend itself to anything other than an "open lid" configuration, even though closed lid is often most desirable for sight lines and feedback control.

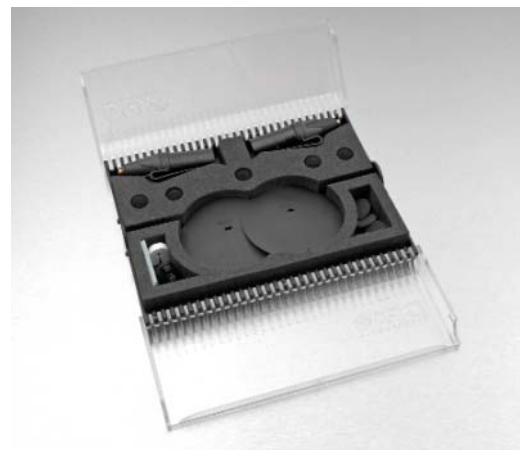
On Piano

The SMK4061 was developed as a piano miking solution. The 4061 microphones are so small as to be nearly invisible, so they lend themselves perfectly to the closed lid scenario. The mounting accessories, which include, most notably, a set of magnetic mounts about the size of a dime, allow the sound engineer to mount the mics inside the piano directly to the metal frame.

With such placement, and a mic cable less than 1/8 the diameter of a "standard" mic cable, one can easily use the SMK system lid up, lid down or anywhere in between. The resulting performance of these mics is nothing short of exceptional, capturing the true intrinsic character of the piano.

Also included in the SMK4061 kit is a set of our Boundary Layer Mounts which transform the 4061's into "pressure zone" mics. They allow the 4061 to work like a kind of acoustical zoom lens, providing higher sensitivity, clarity and intelligibility when compared to sound captured from "free air." Between the magnets and the BLM mounts, a significant range of mounting options are provided.

The result is performance that belies their price.



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REDEFINING PIANO MICING

DPA microphones capture many of the great piano performances worldwide, with absolute fidelity and integrity.

Now the new SMK4061 Stereo Microphone Kit partners a pair of DPA 4061 miniature omnidirectional microphones with a comprehensive range of mounting accessories to deliver a complete and uniquely discreet stereo micing solution for pianos.

Closed lid or open stick, the SMK4061 achieves exceptional results in both live sound and recording applications.



SMK4061 Stereo Microphone Kit

The microphones for sound professionals with uncompromising demands for musical accuracy

DPA 
MICROPHONES

High Definition Microphones™

What is a High Definition Microphone™? It is a microphone that will pick up sounds with far greater accuracy and fidelity than conventional microphones. The difference you hear is like the difference you see when comparing a standard television picture to a high definition television picture. It is that dramatic!

Today's recording systems and recording media are getting better and better with higher sample rates and increased bit rates that provide extended frequency response, lower noise and greater dynamic range. The question is, are microphones capable of picking up sounds with increased bandwidth, lower distortion and with far greater detail? Most microphones available today only have high frequency responses reaching between 15 kHz to 20 kHz and are also not fully capable of supplying the increased detail and dynamic range.

In contrast, David Blackmer, the inventor and engineering genius of the Earthworks and dbx core technologies, foresaw our time. He realized that dramatic improvements in microphone design technologies were needed to replace some of the existing outdated ones. So, he invented a number of new technologies to dramatically increase the audible quality of microphones. Earthworks™ High Definition Microphones™ are not made like any other microphone on the market because they employ Blackmer's new advanced microphone technologies. The audible results are startling! Let's look at some requirements needed to create advanced, higher quality microphones:

Requirements of a High Definition Microphone™:

• Better Impulse Response

This is the ability of a microphone to accurately pick up signals with fast transients and rise times such as percussion, brass, guitar and piano. The impulse response is the single best measure of the overall sonic accuracy and fidelity of a microphone.

• Shorter Diaphragm Settling Time

A shorter diaphragm settling time will increase a microphone's ability to pick up subtle low-level sounds and transients. If the diaphragm is still vibrating from the sounds it picked up previously it will tend to mask or color many or all of the subtle sounds that follow.

• Extended Frequency Response

A number of studies have shown that acoustic sounds and overtones of musical instruments extend to beyond 100kHz. Studies also indicate that sounds beyond 20 kHz greatly influence the overall quality of the sound we perceive.

• Minimum Signal Path

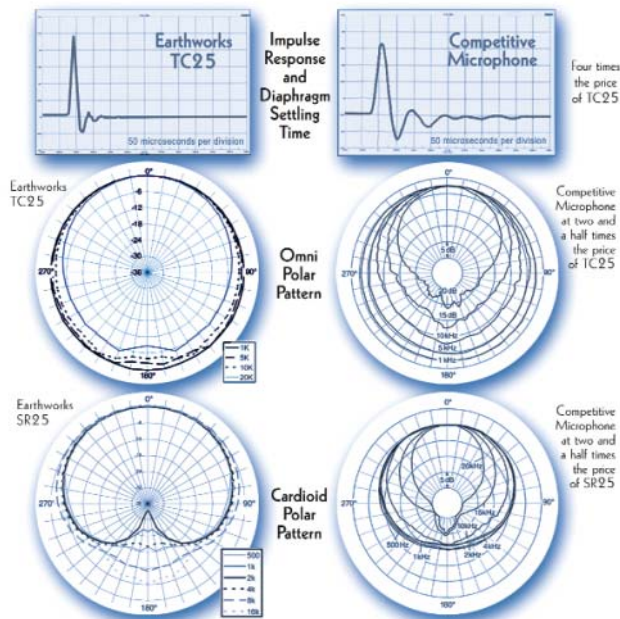
Minimum electronics provide a more pure and unaltered signal. Features such as switchable patterns, pads and hi/low pass filters tend to degrade the sonic qualities of a microphone.

• High SPL Handling at Low Distortion

Many microphones will create severe distortion above 120dB SPL. Higher quality microphones must have very low distortion up to and beyond 140dB SPL. This provides far cleaner signals when picking up high level transients from close-miked or amplified instruments.

• Cable Length

Once a microphone has provided a pure signal with extended frequency response, this signal must get to the other end of a long cable without losses. High current, Class A amplifiers allow driving long cables at very high frequencies without signal loss or slewing.



• Improved Polar Patterns

Polar response of most conventional microphones is poor over their operating frequency range. This causes beaming or spotlighting in addition to deteriorating frequency response with phasing problems on the edges of the pattern, resulting in phase cancellations and/or coloration in close multi-miking, and contributing to acoustic feedback. Improved polar response dramatically reduces these problems.

All Earthworks microphones with extended frequency responses to 25 kHz and above meet these criteria of a High Definition Microphone™. Even our 20 kHz models meet all these criteria with a frequency response out to 20 kHz. Those who have heard Earthworks microphones are astounded by what they hear. When using an Earthworks microphone, typical comments are: "I hear details that I don't hear with other mics!", "This is the best guitar sound, ever!", "This drum sound blows me away.", "This is the best piano sound that ever came out of this studio!", "You'll have to pry these mics from my cold, dead hands!" and many more.

Go to www.EarthworksAudio.com and request the free High Definition Microphone™ Demo CD." Just listen for yourself and you too will be astounded!



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For Those Who Know the True Value of an Exceptional Drum Sound

Introducing
the New

Earthworks®
PREMIUM
DRUM
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SYSTEM

HDM HIGH DEFINITION MICROPHONES™



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Demo CD for yourself by visiting
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Free DK50 Premium DrumKit™
Demo CD available in Dec., 2006.
Order yours now!

More and more drummers are discovering the incredible drum sound that can be theirs with Earthworks® High Definition Microphones™. Drummers such as Keith Carlock (with Steely Dan), Anton Fig (with the David Letterman Show) and Jeff Campitelli (with Joe Satriani) all speak of the exceptional drum sounds they are getting with Earthworks High Definition Microphones. These DrumKit™ High Definition Microphones will make a remarkable difference in either your recordings or live performance. Go to www.EarthworksAudio.com and request a Free DrumKit™ Demo CD so you can hear it for yourself.



The new, Premium DK50/R DrumKit™ System for recording features 50kHz and 30kHz High Definition Microphones™. The gold mics and accessories come in a genuine Zero/Halliburton case. (available in December '06)

The popular DK25 DrumKit™ Systems featuring 25kHz High Definition Microphones™ DK25/R for "recording" and DK25/L for "live performance." Each comes in an attractive aluminum case.

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Groove Tubes: Mics for All Seasons



diaphragms, which we introduced to the industry and are still the world's thinnest diaphragms. And now, with the VELO 8 and its large format ribbon element, we have another great flavor to choose from; it sounds like the best of the ribbon mics, and it's the only one with a field-interchangeable ribbon. No single mic will do everything for everybody, so we're happy to offer a GT solution, no matter what the job."

Company Philosophy

The company's design philosophy is apparent in mics like their mid-sized GT30 and GT40, which have optional interchangeable capsules that turn them from Cardioid to Omni or Hypercardioid. Another great example is the 2006 TEC award-winning GT

Still flush with excitement from having won a 2006 TEC award for their GT Convertible stage/studio condenser mic, Groove Tubes will be the first to tell you that there is no such thing as "the best microphone." From female vocalists to acoustic guitars to kick drums, each audio source and recording/live sound environment is unique. That's why having a deep mic locker is crucial to any serious engineer.

Groove Tubes has crafted a high quality microphone line that fully takes advantage of this fact. "There's a GT mic for everything," says Aspen Pittman, who founded Groove Tubes 29 years ago and continues to run the business today. "It's no accident that we introduced both Class A FET and tube versions of our condenser mics. We've made different flavors that sound great for different sources."

Pittman continues, "It was also part of the plan to have mics like the GT60, which use our exclusive disk resonator to extend high frequencies, as well as mics like the MD1B which retain more of a classic, vintage sound for vocals and instruments. Different sounding, but each with incredible detail as both capsules are hand-built with our ultra-thin 3-micron gold evaporated

Convertible, an affordable yet high-quality true condenser (not electret) mic that changes from a hand-held vocal mic with a removable ball wind screen into an instrument microphone for close miking applications.

There's another aspect that Groove Tubes brings to enhance any mic locker: the entire front-end package. "Most people know we make more than mics," says Pittman. "While GT mics are going to perform well in any signal chain, we're happy to offer complete solutions by pairing our mics with front-end tools like our ViPRE, SuPRE (both PAR Excellence winners) and Brick tube preamps, as well as the Glory Comp, our new all-tube compressor."

The sound of an all-GT front end is no "secret" to the engineers and producers who use them daily. Countless records in every genre of music from

pop and metal to classical and jazz have been made with GT mics, preamps and processors. Famed engineers/producers like Greg Ladanyi, Michael Wagener, and Al Schmitt consider GT gear an essential tool in their bag of tricks. If you're looking to unlock the secrets of great tone, a GT microphone and front-end processor is the key you've been missing.



Groove Tubes

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IF GROOVE TUBES MICROPHONES ARE PRO AUDIO'S **BEST KEPT SECRET**, OUR SECRET KEEPERS AREN'T DOING A VERY GOOD JOB.



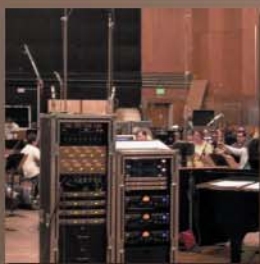
GREG LADANYI
(FLEETWOOD MAC, WARREN ZEVON, DON HENLEY)

"For all the most important vocal and instrument sources, my GT mics, ViPRE mic pre, and Glory Comp tube compressor are what I turn to every day in the studio."



MICHAEL WAGENER
(MOTLEY CRUE, METALLICA, OZZY OSBOURNE)

"The Glory Comp, ViPRE and GT mics have become an essential part of my setup, on everything from guitar to bass to vocals."



FOX MUSIC NEWMAN SCORING STAGE
(X-MEN, THE SIMPSONS, KING KONG)

David Newman: "I love to record my violins and percussion elements with the ViPRE and our GT mics. They capture the sound of the rosin and strings extremely well."



GT Convertible:
Winner of the
2006 TEC Award
(Best Microphone for
Sound Reinforcement)



More info on Groove Tubes' pro audio products available at www.groovetubes.com

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Holophone Surround Sound Microphone Family

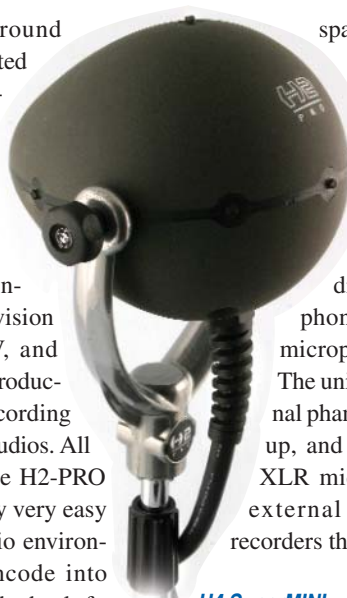
The Holophone H2-PRO Surround Sound Microphone is the only patented device specifically designed for capturing discrete 5.1, 6.1, and 7.1-channels of surround sound for all professional audio applications.

Its flexibility, ease of use, and performance make the H2-PRO ideal for recording live events and in-studio use. It is well suited for television broadcasters (standard TV, DTV, and HDTV), radio broadcasters, music producers and engineers, film location recording crews, and for independent project studios. All surround sound recordings from the H2-PRO are discrete and in real time, thereby very easy to bring into any broadcast or studio environment, manipulate, mix and/or encode into any/all of the standard consumer playback formats – Dolby, DTS, and Circle Surround. The H2-Pro provides engineers and producers total control over all incoming, discrete surround sound audio signals and delivers those signals in an intuitive way. The Holophone H2-PRO Surround Sound Microphone is entirely compatible with all standard analog and digital I/O devices that accept up to eight channels and provide phantom power including hard disc based recorders, multichannel preamplifiers, standard multichannel I/Os, and all mixing consoles.

H3-D

H3-D, 5.1 surround sound capture for pro audio, project studios, live music production, educational applications and faith-based facilities as well as professional broadcast and recording studios. The H3-D is a powerful tool for engineers, content producers and artists on all levels to craft realistic and exciting surround sound tracks.

Based on industry standard, patented Holophone Surround technology, the H3-D offers a dedicated 5.1 design that brings the unit within the reach of the growing market segment in need of surround capture capability. The H3-D is easy to use, making it the ideal choice for situations that have budget, engineering or



space restrictions. By shattering the price to performance barrier, professional grade surround sound can now enter the production stream on all levels, further enhancing the listening experience for the end user.

The H3-D features five multi-directional, full bandwidth microphone elements and a discrete LFE microphone in one integrated capsule. The unit offers LED verification of external phantom power for ease of remote setup, and is compatible with all standard XLR mic inputs on recording consoles, external pre-amplifiers and location recorders that provide phantom power.

H4 SuperMINI

The breakthrough Holophone H4 SuperMINI Surround Sound microphone system delivers expansive 5.1 channel audio field capture in a super compact package, mountable on any professional quality video camera. The system offers an integrated multi-channel pre-amplifier, virtual surround headphone monitor and matrix surround encoder allowing truly professional results for six-channel processing of live audio from the concert hall and sports stadium to fast-paced ENG applications. The H4 is ideally suited for all live event television broadcasters, live music producers and engineers and film and video location crews who are interested in real-time

surround audio for delivery to an ever increasing Home Theater audience. The microphone has six independent microphone elements that are output through either a matrix surround encoded stereo analog output or six line-level analog outputs, available through three stereo mini-plug jacks. The SuperMINI has additional capabilities that include an input for an external, center-channel placed shotgun or lavalier microphone to enhance sonic opportunity options and features a zoom button that increases the forward bias of the pick-up pattern. It also includes Virtual Surround Monitoring on headphones for real time on-camera 3-D audio monitoring of the surround field.



Holophone

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info@holophone.com

Surround. Simple.

Hey You!

Yes. THIS MEANS YOU... lying on the couch or sitting at the desk or in the producer's chair or lying in bed...



Throw your surround microphone arrays in the trash!

Buy a Holophone.
It just makes life so simple...

(Or at least rent one and try it!)



2006 TEC AWARD NOMINEE
FOR OUTSTANDING
TECHNICAL ACHIEVEMENT



A W A R D W I N N I N G P R O D U C T S



HOLOPHONE®
Surround Sound Microphone Systems
www.holophone.com 01.416.362.7790

MXL-USB.006 Microphone



The MXL-USB.006 is a true cardioid studio condenser microphone with a gold diaphragm that connects directly to personal computers via USB (Universal Serial Bus) without the need for an external mic preamp. As a true Plug and Play device for both Windows and Macintosh personal computers, the MXL.006 supports both USB 1.1 and 2.0 (high speed USB) and requires no special drivers whatsoever. Simply connect the microphone's USB cable to the computer's USB port, and installation is quick and effortless. To further simplify using the microphone with a computer, the MXL.006 handles analog gain adjustment settings via its built-in three-position attenuation switch while the computer takes care of actual record levels. This arrangement ensures proper gain staging and facilitates movement — freeing the user from having to remain unnaturally still while speaking or singing into the microphone.

Unlike electret or dynamic microphones that are commonly used for computer work, the MXL.006 has an extremely smooth, natural sound typical of what one would hear on a professionally produced CD or radio show. The analog section of the MXL.006 microphone features a 20 Hz - 20 kHz frequency response, a gold diaphragm, pressure-gradient condenser capsule, and a three-position, switchable attenuation pad with settings for Hi (0 dB), Medium (-5 dB), and Lo (-10 dB), making it easy to configure the microphone to virtually any sound source. The digital section features a 16-bit Delta Sigma A/D converter with sampling rates of 44.1 kHz and 48 kHz. Protecting the instrument's capsule is a heavy-duty



wire mesh grille with an integrated pop filter.

To make recording a trouble-free process, the MXL.006 features a red LED behind the protective grille. This LED informs the user that the microphone is active and correctly oriented toward the user. Like many professional grade studio microphones, the MXL.006 has a beautiful silver matte finish. The MXL.006 ships with a travel case, a desktop microphone stand, a 10-foot USB cable, windscreen, an owner's manual, and an applications guide.



MXL Microphones

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PLUG
PLAY
PERFORM



It's that easy to get started with the MXL USB.006. No menu's, no drivers to install, Just plug it in, set your preferences and you're recording! Ease of operation is just the beginning. Inside this great looking body you get a true Gold Diaphragm Studio Condenser Microphone - not a cheap dynamic or noisy electret. Its got real analog volume adjustments to ensure precise gain staging and sounds just like a studio mic should. The MXL.006 comes with a 10' USB cable, a table stand, a travel case and is MAC and PC compatible.

Audition one today at most fine music retailers.

(800) 800-6608 / www.mxl-usb.com



Digital Wireless Recording from Zaxcom



Zaxcom, Inc. designs and manufactures innovative professional audio equipment for the television and film industries. A pioneer in audio technologies for sound mixing and ENG professionals, Zaxcom engineered the first digital wireless microphone and the first wireless microphone to feature integrated audio recording.

Zaxcom's revolutionary TRX900, TRX900AA and TRX990 digital recording wireless microphone transceivers are the industry's first wireless microphones to provide integrated audio recording, time code transmission and full encryption to protect sensitive

audio files. This patent-pending feature set allows audio professionals to record up to 12 hours of audio directly to a Flash memory card and then transfer the .WAV files to either a PC or Macintosh for post-production.

The TRX900 and TRX900AA systems are designed for use primarily with a lavalier microphone. The TRX990, with integrated phantom power, is engineered as a complete solution for wireless booms, parabolic microphones, and a two-channel ENG bag-to-camera link. Additional information is available at www.theultimatewireless.com.

The latest addition to the TRX series is Zaxcom's TRX800 handheld wireless microphone with internal recording. Designed for use in studio, theater, and ENG applications, the TRX800 handheld is the only professional wireless handheld microphone to use digital modulation. Unlike other handheld microphones, which use a compander or audio processor that colors the audio, the TRX800 offers audio quality equivalent to AES audio on a hard-wired cable. The handheld unit records up to 12 hours of audio to a removable memory card. By recording directly to the handheld mic, the TRX800 provides a backup of all audio transmissions. When RF interference or signal loss is experienced, the user can simply transfer the audio stored on the TRX800's memory card to a broad-

cast-quality WAV file with SMPTE time code reference.

The fully encrypted TRX800 handheld system is controlled via an internal RF receiver. SMPTE time code transmitted to the TRX800 provides a time code reference for the system's patent-pending internal recording capabilities. Users can employ an RF remote to control all audio parameters even while the TRX800 unit is in use. Multiple units may be used together to form a virtual multitrack recording sys-



tem (patent pending). The TRX800 has a run time of four and one-half hours. There are also two recorders that are similar in design to the TRX series, the ZFR100 and ZFR800. These recorders, one belt-pack style, the ZFR100, and one handheld style, the ZFR800, record time code stamped .WAV files on removable mini SD cards that can be instantly changed in the field then transferred to either a PC or Macintosh for post-production.



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No Signal? *No Problem!*



You're never out of range with **Zaxcom Digital Recording Wireless**

The new TRX900 has an optional 12 hour, 24 bit internal loop-recording capability. Audio is Time Code referenced, recorded and played back on a mini SD memory card that is instantly removable and can be used in any standard SD card reader. The cards contain Time Code stamped BWF files that will match up perfectly with sound and picture.



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